BSC 489 Independent Studies (3 Credit Hours) - Fall 2012
(Rudy Castillo, Sravan Vemuri, and Danyelle Butts)

Interferon Stimulated Genes and Cancer

Instructor: Dr. Venugopalan Cheriyath, STC 352, STC 353 & STC 332

Purpose: Gain a better understanding of interferons (IFN) and its target genes in cancer development and progression.

Specific study objectives for each student:
Rudi Castillo
1. Investigate the antitumor activity of IFNs in pancreatic cell carcinomas.
2. Gain a better understanding of cancer promoting activity of IFNs in pancreatic cell carcinomas.
3. Investigate the role of G1P3 in antagonizing IFN mediated apoptosis in pancreatic cell carcinomas.
4. Present research findings in Pathway Symposium in Fall-2012.

Sravan Vemuri
1. Perform multivariate analysis on ISGs with significant effect on breast cancer patient outcomes.
2. Investigate the effect of IFIT1 on breast cancer progression.
3. Present research findings in Pathway Symposium in Fall-2012.

Danyelle Butts
1. Investigate the effect of G1P3, one of the first discovered ISG, on actin organization.
2. Investigate the interaction between G1P3 and cytoskeleton system in breast carcinomas.
3. Present research finding in Pathway Symposium in Fall-2012.

Grading Scheme

<table>
<thead>
<tr>
<th>Attendance and Participation</th>
<th>45 Points</th>
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<tr>
<td>Cell culture</td>
<td>15 points</td>
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<td>Immunoblot analysis &amp; Immunoprecipitation</td>
<td>15 points</td>
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<td>Statistical Analysis</td>
<td>5 points</td>
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Presentation 10 points
Report 10 points

**Requirements:**
All students will be working under my direct supervision. Students are required to attend all lab meetings and attempt at least 10 hours of laboratory work per week. Depending on the experiments they may require to come to the everyday of the week including week ends.

**Important References**